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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,139	07/31/2003	Eric Michael Breitung	121277	9469

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General Electric Company
CRD Patent Docket Rm 4A59
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EXAMINER	
ZERVIGON, RUDY	
ART UNIT	**PAPER NUMBER**
1763	

DATE MAILED: 12/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/630,139	BREITUNG ET AL.	
	Examiner	Art Unit	
	Rudy Zervigon	1763	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 October 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 10/449,975. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of copending Application No. 10/449,975 thermally/electrically isolate a light tranmission portion but does not similarly thermally/electrically isolate a process gas tranmission portion.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the same isolation means as claimed by copending Application No. 10/449,975 to gas transmission.

Motivation to apply the same isolation means as claimed by copending Application No. 10/449,975 to gas transmission is to thermally and electrically isolate the process gasses for preventing premature reaction(s).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Countrywood; Joseph et al. (US 6,110,540 A). Countrywood teaches a delivery device (Figure 3B; column 6; line 34 - column 6, line 23) for a thin film deposition or etching apparatus (Figure 1; column 6; lines 35-48), comprising: a heated gas (120; Figure 3B) inlet line (conduit for gas from 120; Figure 3B; column 6; line 34 - column 6, line 23) for delivering a gas (120; Figure 3B) to a powered electrode (18; Figure 1,3B; column 6; line 34 - column 6, line 23) of the apparatus (Figure 1; column 6; lines 35-48), the gas (120; Figure 3B) inlet line (conduit for gas from 120; Figure 3B; column 6; line 34 - column 6, line 23) maintained under a vacuum (16; Figure 1; column 4; lines 34-49); and a coupling device (110; Figure 1; column 7; lines 15-23) located between the powered electrode (18; Figure 1,3B; column 6; line 34 - column 6, line 23) and the gas (120; Figure 3B) inlet line (conduit for gas from 120; Figure 3B; column 6; line 34 - column 6, line 23), the coupling device (110; Figure 1; column 7; lines 15-23) comprising insulation portion (" ceramic elements 110"; Figure 1; column 7; lines 15-23), as claimed by claim 1

Countrywood further teaches:

i. The device of claim 1, wherein the gas (120; Figure 3B) inlet line (conduit for gas from 120; Figure 3B; column 6; line 34 - column 6, line 23) is directly connected to the coupling device (110; Figure 1; column 7; lines 15-23), as claimed by claim 2

ii. The device of claim 2, wherein the coupling device (110; Figure 1; column 7; lines 15-23) is directly connected to the powered electrode (18; Figure 1,3B; column 6; line 34 - column 6, line 23), as claimed by claim 3

iii. The device of claim 1, wherein the thin film deposition or etching apparatus (Figure 1; column 6; lines 35-48) comprises a PECVD apparatus (Figure 1; column 6; lines 35-48), as claimed by claim 4

iv. The device of claim 1, wherein the insulation portion (" ceramic elements 110"; Figure 1; column 7; lines 15-23) is both thermally and electrically insulating, as claimed by claim 5

v. The device of claim 1, wherein the insulation portion (" ceramic elements 110"; Figure 1; column 7; lines 15-23) comprises a plastic or a ceramic material, as claimed by claim 6

vi. The device of claim 3, wherein the coupling device (110; Figure 1; column 7; lines 15-23) further comprises a flange (outer portion of 110, not labelled; Figure 3B) for maintaining the gas (120; Figure 3B) inlet line (conduit for gas from 120; Figure 3B; column 6; line 34 - column 6, line 23) under a vacuum (16; Figure 1; column 4; lines 34-49), claimed by claim 7

vii. The device of claim 7, wherein the flange (outer portion of 110, not labelled; Figure 3B) is connected to the gas (120; Figure 3B) inlet line (conduit for gas from 120; Figure 3B; column 6; line 34 - column 6, line 23), the insulation portion (" ceramic elements 110"; Figure 1; column 7; lines 15-23) is connected to the powered electrode (18; Figure 1,3B; column 6; line 34 - column 6, line 23), and the insulation portion (" ceramic elements 110"; Figure 1; column 7; lines 15-23) and flange (outer portion of 110, not labelled; Figure 3B) are connected to each other, as claimed by claim 8

viii. A delivery device (Figure 3B; column 6; line 34 - column 6, line 23) for delivering a gas (120; Figure 3B) to a thin film deposition or etching apparatus (Figure 1; column 6; lines 35-48), the system comprising: a heated gas (120; Figure 3B) inlet line (conduit for gas from 120; Figure 3B; column 6; line 34 - column 6, line 23) maintained under a vacuum (16; Figure 1; column 4; lines 34-49); and a coupling device (110; Figure 1; column 7; lines 15-23) located between a powered electrode (18; Figure 1,3B; column 6; line 34 - column 6, line 23) of the apparatus (Figure 1; column 6; lines 35-48) and the gas (120; Figure 3B) inlet line (conduit for gas from 120; Figure 3B; column 6; line 34 - column 6, line 23), the coupling device (110; Figure 1; column 7; lines 15-23) comprising thermal and electrical insulation portion (" ceramic elements 110"; Figure 1; column 7; lines 15-23), as claimed by claim 9

ix. The device of claim 9, wherein the gas (120; Figure 3B) inlet line (conduit for gas from 120; Figure 3B; column 6; line 34 - column 6, line 23) is directly connected to the coupling device (110; Figure 1; column 7; lines 15-23), as claimed by claim 10

x. The device of claim 10, wherein the coupling device (110; Figure 1; column 7; lines 15-23) is directly connected to the powered electrode (18; Figure 1,3B; column 6; line 34 - column 6, line 23), as claimed by claim 11

xi. The device of claim 9, wherein the electrical insulation portion (" ceramic elements 110"; Figure 1; column 7; lines 15-23) comprises a plastic or a ceramic material, as claimed by claim 12

xii. The device of claim 11, wherein the coupling device (110; Figure 1; column 7; lines 15-23) further comprises a flange (outer portion of 110, not labelled; Figure 3B) for

maintaining the gas (120; Figure 3B) inlet line (conduit for gas from 120; Figure 3B; column 6; line 34 - column 6, line 23) under a vacuum (16; Figure 1; column 4; lines 34-49), as claimed by claim 13

xiii. The device of claim 13, wherein the flange (outer portion of 110, not labelled; Figure 3B) is connected to the gas (120; Figure 3B) inlet line (conduit for gas from 120; Figure 3B; column 6; line 34 - column 6, line 23), the insulation portion (" ceramic elements 110"; Figure 1; column 7; lines 15-23) is connected to the powered electrode (18; Figure 1,3B; column 6; line 34 - column 6, line 23), and the insulation portion (" ceramic elements 110"; Figure 1; column 7; lines 15-23) and flange (outer portion of 110, not labelled; Figure 3B) are connected to each other, as claimed by claim 14

xiv. A PECVD apparatus (Figure 1; column 6; lines 35-48) containing a delivery system, the system comprising: a heated gas (120; Figure 3B) inlet line (conduit for gas from 120; Figure 3B; column 6; line 34 - column 6, line 23) maintained under a vacuum (16; Figure 1; column 4; lines 34-49); and a coupling device (110; Figure 1; column 7; lines 15-23) located between a powered electrode (18; Figure 1,3B; column 6; line 34 - column 6, line 23) of the PECVD apparatus (Figure 1; column 6; lines 35-48) and the gas (120; Figure 3B) inlet line (conduit for gas from 120; Figure 3B; column 6; line 34 - column 6, line 23), the coupling device (110; Figure 1; column 7; lines 15-23) comprising insulation portion (" ceramic elements 110"; Figure 1; column 7; lines 15-23) and flange (outer portion of 110, not labelled; Figure 3B) device for maintaining the gas (120; Figure 3B) inlet line (conduit for gas from 120; Figure 3B; column 6; line 34 - column 6, line 23) under a vacuum (16; Figure 1; column 4; lines 34-49), as claimed by claim 15

xv. The device of claim 15, wherein the gas (120; Figure 3B) inlet line (conduit for gas from 120; Figure 3B; column 6; line 34 - column 6, line 23) is directly connected to the coupling device (110; Figure 1; column 7; lines 15-23) and the coupling device (110; Figure 1; column 7; lines 15-23) is directly connected to the powered electrode (18; Figure 1,3B; column 6; line 34 - column 6, line 23), as claimed by claim 16

xvi. The device of claim 15, wherein the insulation portion (" ceramic elements 110"; Figure 1; column 7; lines 15-23) is both thermally and electrically insulating, as claimed by claim 17

xvii. The device of claim 16, wherein the flange (outer portion of 110, not labelled; Figure 3B) is connected to the gas (120; Figure 3B) inlet line (conduit for gas from 120; Figure 3B; column 6; line 34 - column 6, line 23), the insulation portion (" ceramic elements 110"; Figure 1; column 7; lines 15-23) is connected to the powered electrode (18; Figure 1,3B; column 6; line 34 - column 6, line 23), and the insulation portion (" ceramic elements 110"; Figure 1; column 7; lines 15-23) and flange (outer portion of 110, not labelled; Figure 3B) are connected to each other, as claimed by claim 18

Response to Arguments

5. Applicant's arguments filed October 3, 2005 have been fully considered but they are not persuasive.

6. Applicant states:

"

Countrywood does teach a gas supply, but it is not in the electrode structure shown in Fig. 3B. Rather, the gas supply is shown in Fig. 1 of Countrywood, and designated by element numeral

22. This actual gas supply 22: (1) is not heated; (2) does not deliver gas to an electrode; and (3) is not isolated from a charged electrode. Countrywood uses a completely different approach to a PECVD system. In Countrywood, the gas is delivered separately âom aplasma source. The gas itself is not delivered to the electrode at all.

"

In response, the Examiner disagrees with Applicant's recharacterization of the Examiner's explicit rejection. The Examiner cited Countrywood's gas delivery device (Figure 3B; column 6; line 34 - column 6, line 23) which in Figure 3B is designated "98", not "22" as applicant suggests. Countrywood specifically states "Element 108 is connected to the alternating current power supply 18 of FIG. 1 so that the direct current arc system 98 acts as a counter-electrode." (column 7; lines 15-23), in equivalently, Countrywood's Figure 1, element 12 "counter-electrode" is equivalent, per Countrywood, to the Figure 3B structure.

7. Applicant further states:

"

Moreover, the electrode arrangement of Countrywood, discussed by the Examiner, is not equivalent to a gas supply as claimed. The claimed gas supply is used to provide the very gas that is converted to plasma in the chamber. The electrode of Countrywood, shown in Fig. 3B, does not deliver a gas at all. Rather, it creates plasma within the structure, and delivers plasma into the chamber.

"

In response, the Examiner has specifically cited Countrywood's "plasma based counter-electrode" of Figure 3B (see the above discussion) as being an equivalent to Applicant's gas

delivery device. The electrode of Countrywood, shown in Fig. 3B, does deliver a gas – "Gas Supply 120". That Countrywood creates plasma within his structure, and delivers plasma into the chamber, is indistinguisable from Applicant's Figure 2 arrangement.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Rudy Zervigon whose telephone number is (571) 272.1442. The examiner can normally be reached on a Monday through Thursday schedule from 8am through 7pm. The official fax phone number for the 1763 art unit is (703) 872-9306. Any Inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Chemical and Materials Engineering art unit receptionist at (571) 272-1700. If the examiner can not be reached please contact the examiner's supervisor, Parviz Hassanzadeh, at (571) 272-1435.

12/13/5